CLAIMS

What is claimed is:

1. A manifold anti-rotation system for engines having an engine cylinder head with a manifold interface portion, said anti-rotation system comprising:

a manifold having an end for interfacing with a manifold interface portion of an engine cylinder head, said manifold end having a protrusion extending from a periphery thereof; and

a mounting collar further comprising a collar body having a central aperture therethrough defined by an aperture wall, said aperture receiving said manifold end therein, said mounting collar further including a projection extending from a top surface opposite from the cylinder head, said manifold protrusion and said collar projection cooperating to prevent said manifold from rotating with respect to said mounting collar beyond said manifold protrusion.

2. A manifold anti-rotation system as recited in claim 1, wherein said mounting collar includes at least two collar projections extending from said collar top surface.

3. A manifold anti-rotation system as recited in claim 2, wherein said two collar projections are spaced one from the other about a circumference of said central aperture.

4. A manifold anti-rotation system as recited in claim 3, wherein said circumferential spacing is less than 180 degrees.

5. A manifold anti-rotation system as recited in claim 4, wherein said manifold protrusion is positioned within said less than 180 degrees circumferential spacing of said collar projections.

6. A manifold anti-rotation system as recited in claim 5 wherein said circumferential spacing is slightly greater than a width of said manifold protrusion.

7. A manifold anti-rotation system as recited in claim 3, wherein said collar body has a slot therein oriented outwardly from said collar body and a hole therethrough for receiving fasteners to affix said mounting collar to the cylinder head.

8. A manifold anti-rotation system as recited in claim 7, wherein one of each said collar projections are circumferentially positioned on opposite sides of said slot.

9. A manifold anti-rotation system as recited in claim 8, wherein said collar projections are circumferentially centered about said slot.

10. A manifold anti-rotation system as recited in claim 1, further comprising a seal in contact with said manifold and the manifold interface portion of the cylinder head, said seal being retained by said collar body,

11. A manifold anti-rotation system as recited in claim 10, wherein said collar body further defines a groove in a bottom surface of said collar, said groove extending about said circumference of said central aperture and receives at least a portion of said seal therein.

12. A manifold anti-rotation system as recited in claim 11, wherein said groove has a first portion defined in said aperture wall, and a second portion defined in said collar bottom surface.

13. A manifold anti-rotation system as recited in claim 12, wherein said seal includes a first seal segment received in said first groove portion, and a second seal segment received in said second groove portion.

14. A manifold anti-rotation system as recited in claim 13, wherein said first seal segment is compressingly engaged between said first groove portion and said manifold end.

15. A manifold anti-rotation system as recited in claim 14, wherein said second seal segment is retained in said second groove portion, said second seal

segment extending partially below said bottom collar surface for compressingly abutting the cylinder head.

17. A mounting collar for mounting a manifold to a cylinder head of an engine, said mounting collar comprising:

a collar body having a central aperture therethrough defined by an aperture wall for receiving an end of a manifold, and defining at least one aperture therethrough for receiving a fastener, and further including at least one collar projection extending upwardly from a top surface for cooperating with a corresponding protrusion extending outwardly from a manifold mounted by said mounting collar; and

a seal retained by said collar body, said seal for abutting the manifold and the cylinder head.

18. A mounting collar as recited in claim 17, wherein at least one of said fastener apertures is a slot oriented outwardly from said collar body for receiving fastener a to affix said mounting collar to the cylinder head.

19. A mounting collar as recited in claim 17, wherein said collar body further defines a groove in a bottom surface of said collar, said groove extending about said circumference of said central aperture and receiving at least a portion of said seal therein.

20. A manifold anti-rotation system for engines having an intake portion of a cylinder head, said anti-rotation system comprising:

an intake manifold having an end for interfacing with the intake portion of the engine cylinder head, said intake manifold end having a protrusion extending from a periphery thereof; and

a mounting collar comprising a collar body and a seal, said collar body having a central aperture defined by an aperture wall, said central aperture receiving said manifold end therein and further including a projection extending from a top surface opposite from the cylinder head, said manifold protrusion and said mounting collar projection positioned to abut one to the other to prevent said intake manifold from

rotating with respect to said mounting collar beyond said manifold protrusion, and further wherein said seal contacts said manifold and the intake portion of the cylinder head, said seal being retained by said collar body.